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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,460	07/17/2002	Long-Jyh Pan	ACMP0028USA	5809

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NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)  
P.O. BOX 506  
MERRIFIELD, VA 22116

EXAMINER

KOYAMA, KUMIKO C

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/064,460	<b>Applicant(s)</b> PAN ET AL.	
	<b>Examiner</b> Kumiko C. Koyama	<b>Art Unit</b> 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson et al (US 5,746,493) in view of Stephenson (US 6,006,118) and Hiramoto et al (US 5,847,783).

Jonsson teaches a light guide for a telephone assembly, which is shown in Fig. 5 and is considered as a portable electronic device. The telephone assembly includes key pads 84 and a liquid crystal display (LCD) 88 (col 4, lines 5-9). The light guide is formed of a translucent plastic material (col 2, lines 44-46). In Fig. 5, the LCD is placed on one face of the light guide. Light sources, such as LEDs, are positioned in the light source holes to provide light for the second portion of the light guide (col 2, lines 67+).

Jonsson fails to specifically disclose that the light guide shield the LCD module from electrostatic discharge of the electronic components and serves as a shield for electromagnetic radiation. Jonsson also fails to specifically disclose that a metallic shield directly disposed on the second major surface of the translucent plate.

Stephenson teaches that that a conductive material, which is considered as a metallic shield, is provided within the compartments between the lightguide and the circuit board for EMI shielding purposes (col 2, lines 45-49). When the conductive

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material is placed between the lightguide and the circuit board, the conductive material is considered as part of the light guide.

Therefore, it would have been obvious to an artisan of ordinary skill at the time the invention was made to integrate the teachings of Stephenson to the teachings of Jonsson in order to prevent display errors caused from electromagnetic interference on circuit that is driving the display, and therefore, displaying accurate information.

Jonsson as modified by Stephen fail to specifically disclose that the ground pad is electrically connected to the electronic components and an electrically conductive material is electrically connected to the ground pad.

Hiramoto teaches that a transparent conductive sheet 22 of the LCD is connected to ground. The conductive sheet is attached to the printed circuit board, which includes electronic components (col 5, lines 55+). Therefore, the ground is connected to the electronic components in an indirect manner through the conductive material.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Hiramoto to the teachings of Jonsson as modified by Stephenson in order to prevent the problem due to a display error resulting from an adverse influence on the display panel driving circuit, caused by noise generated from the drive circuit for plane-type light source.

Re claim 2: Jonsson teaches recesses 44 formed on the light guide (col 1, lines 65+). Jonsson also teaches reflecting recesses 60 and 62 that are also formed on the light guide (col 3, lines 24-43).

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Re claim 3: Jonsson as modified by Stephenson fail to teach at least a reflecting strip adhered to the translucent plat for directing light from the source into the translucent plate.

Hiramoto teaches a display apparatus including a semi-transmission reflection film (col 2, lines 24-27).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Hiramoto to the teachings of Jonsson as modified by Stephenson in order to conserve power of the device by shortening the utilization of the light from the light source and reflect incident lights from the light source into the multiple light, such that constant light from the light source is unnecessary.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Stephenson and Hiramoto as applied to claim 1 above, and further in view of Sato et al (US 5,351,143). The teachings of Jonsson as modified by Stephenson and Hiramoto have been discussed above.

Jonsson as modified by Stephenson and Hiramoto fail to teach that the electrically conductive material is an electrically conductive sponge.

Sato teaches a conductive material including conductive sponge (col 10, lines 28-29).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Jonsson as modified by Stephenson and Hiramoto because a conductive sponge acts in an equivalent manner as a conductive material as taught above and it is also available in a small form, which

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reduces the amount of spaces that is utilized within the device and further reduces the size of the device overall.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Asuma et al., U.S. Patent No. 6,275,279, discloses a liquid crystal display apparatus for a portable computer.

Hasegawa et al., U.S. Patent No. 5,805,249, discloses a liquid crystal display apparatus for a portable computer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 703-305-5425 (or 571-272-2394 starting Jan 15, 2004). The examiner can normally be reached on Monday-Friday 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
Kumiko C. Koyama  
January 12, 2004

  
DIANE I. LEE  
PRIMARY EXAMINER